Antibacterial Activity of Some Herbal Medicinal Products

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Background & Objectives: Phytochemicals have recently been shown to be a good alternative to syntetic chemical substances to prevent the growth of bacteria. The purpose of this work was to evaluate of herbal Essence on various pathogenic bacteria.

Methods: The antibacterial activity of the plant essences to the tested organisms was screened using the standard Disk agar diffusion Methods (Kirby bauer Methods). An inoculum bacterial suspension was prepared according to 0.5 macfarland (1.5x108cfu/ml). In this assay the various bacteria such as *Streptococcus Group A*, *Staphylococcus aureus* and others were studied. All of these bacteria were isolated hospital samples. Antibacterial activity of all essences were examined with blank disk (wattman No :1)which was soaked in each of the essence and replace on the Muller Hinton Agar (MHA) plate. Inhibition zones were measured in millimeters (mm) on the MHA plate. The herbal medicinal products of Barij Essence Pharmaceutical Co, include: Henna10% (Lawsonia inermis),Myrtel10% (*Myrtus communis*), Lemon 2% (*Citrus limon*), Sweet fennel 2% (*Satureia hortensis*) and Thyme 2% (*Thymus vulgaris*).

Results: The antibacterial activities of 5 herbal medicinal products were assessed. Resuts of this study showed that Lawsonia inermis revealed the highest significant antibacterial activity with inhibition zone more than 15 mm. Other Essencees exhibited different antibacterial activity.

Conclusion: Plants contain thousands of constituents and are valuable sources of new and biologically active molecules possessing antimicrobial properties. Findings of this study showed that some tested herbal medicinal Essences didn,t have enough antibacterial activity. Considering the high effect of *Lawsonia inermis* (among the tested Essences) against hospital isolated bacterial strains. We can offer this product to design new drug with low side effect compared to commercial drugs.

Keywords: Medicinal Plants; Herbalessence; Antimicrobial Activity